

## Dur-A-Wall HP Topcoat Hardener SAFETY DATA SHEET

### 1. IDENTIFICATION

**Product Identifier:** Dur-A-Wall HP Topcoat Hardener

**Recommended use:** Floor Surfacing

**Manufacturer Name:** Dur-A-Flex, Inc.  
95 Goodwin Street  
East Hartford, CT 06108

**Telephone number:** 860-528-9838

**Emergency phone number:** 1-800- 424-9300 (CHEMTREC)

**Date of Preparation:** April 16, 2014

### 2. HAZARD(S) IDENTIFICATION

This product is one part of a two part product. Read and understand the hazard information on the SDS for Wall Resin before using this product.

**Classification:**

Physical	Health
Not Hazardous	Acute Toxicity Category 3 – Inhalation Skin Sensitization Category 1 Respiratory Sensitization Category 1 Specific Target Organ Toxicity – Single Exposure Category 3 (Respiratory Irritation)

**Labeling:**

**Danger!**



**Hazard statement(s)**

Toxic if inhaled.  
May cause an allergic skin reaction.  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause respiratory irritation.

**Precautionary statement(s)**

Avoid breathing mist, vapors and spray.  
Use only outdoors or in a well-ventilated area.  
Contaminated work clothing should not be allowed out of the workplace.  
Wear protective gloves.  
In case of inadequate ventilation wear respiratory protection.  
IF ON SKIN: Wash with plenty of soap and water.

If skin irritation or rash occurs: Get medical attention.  
Wash contaminated clothing before reuse.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
Call a POISON CENTER or doctor.  
Store in a well-ventilated place. Keep container tightly closed.  
Store locked up.  
Dispose of contents and container in accordance with local and national regulations.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Concentration
Homopolymer of Hexamethylene Diisocyanate	28182-81-2	60-100%
Hydrophilic Aliphatic Polyisocyanate	666723-27-9	15-25
Hexamethylene-1,6-Diisocyanate	822-06-0	0.1-1%
N, N-Dimethylcyclohexylamine	98-94-2	0.1-1%

The specific identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

### 4. FIRST-AID MEASURES

**Inhalation:** Immediately remove to fresh air. If breathing is difficult have qualified personnel administer oxygen. If breathing has stopped, administer artificial respiration. Get immediate medical attention. Asthma-like symptoms may develop immediately or delayed up to several hours.

**Skin contact:** Immediately remove contaminated clothing. Wash skin thoroughly with soap and water. If rash or irritation develops, get medical attention. Launder clothing before re-use.

**Eye contact:** Immediately flush with large quantities of water for several minutes, holding the eyelids apart. Get medical attention if irritation develops.

**Ingestion:** If conscious, rinse mouth with water. Never give anything by mouth to an unconscious or convulsing person. Do not induce vomiting. Get medical attention.

**Most important symptoms/effects, acute and delayed:** May be irritating to eyes, skin and respiratory system. May cause allergic skin and respiratory reaction. If an allergic respiratory reaction occurs, get immediate medical attention. Symptoms may be delayed. Individuals sensitized to isocyanates may have a life-threatening allergic reaction.

**Indication of immediate medical attention and special treatment, if necessary:** If difficulty breathing or indication of respiratory sensitization occurs, get immediate medical attention. Symptoms may be delayed for several hours after exposure. Respiratory sensitization may be life threatening.

**Notes to Physicians:** If cornea is burned, instill antibiotic/steroid preparation as needed. Workplace vapors could produce reversible corneal epithelial edema impairing vision. This compound is a skin sensitizer. Treat symptomatically as for contact dermatitis or thermal burn. Inducing vomiting is contraindicated because of the irritating nature of the compound. There is no specific antidote for ingestions. An individual having a dermal or pulmonary sensitization reaction to this material should be removed from further exposure to any diisocyanate. Treatment is essentially symptomatic.

## 5. FIRE-FIGHTING MEASURES

**Suitable (and unsuitable) extinguishing media:** Use foam, carbon dioxide and dry chemical. Use water spray for large fires. Do not use high volume water jet. Cool fire exposed containers with water.

**Specific hazards arising from the chemical:** This product reacts with water producing heat and gases. Reaction may be violent. Closed containers may rupture when exposed to extreme heat or contaminated with water. Combustion may produce carbon and nitrogen oxides, hydrogen cyanide, isocyanateisocyanic acid and dense black smoke. Exposure to heated diisocyanates can be extremely dangerous.

**Special protective equipment and precautions for fire-fighters:** Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing. Do not allow run-off from fire fighting to enter drains or water courses. Decontaminate equipment and protective clothing before reuse.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment, and emergency procedures:** Wear appropriate protective clothing as described in Section 8. Isolate the area and prevent access. Ventilate and remove ignition sources.

**Methods and materials for containment and cleaning up:** Contain and collect with an inert absorbent. Shovel into an approved metal container. Do not fill more than 2/3 the way full to allow for expansion. Do not tighten the container lid. Repeat application of the absorbent materials until all the liquid has been removed. Decontaminate the spill site using a neutralization solution. Scrub with a broom or brush. Wait 15 minutes. Cover with absorbent material and shovel into an approved metal container. Check for residual isocyanate contamination using a Swype® test pad. If the pad turns red, repeat the process until there is no color change in the pad. Cover the container lightly and move to an isolated area for 72 hours to allow carbon dioxide to escape.

Neutralize with a decontamination solution made up of 80% mineral spirits, 15% V M & P Naphtha and 5 detergent. Decontaminate the spill site using a neutralization solution. Scrub with a broom or brush. Cover with absorbent material and shovel into an approved metal container. Check the spill area for residual isocyanate contamination using a Swype® test pad. If the pad turns red, repeat the process until there is no color change in the pad. Cover loosely with lid and allow container to vent for 72 hours to allow carbon dioxide to escape.

## 7. HANDLING AND STORAGE

**Precautions for safe handling:** Do not breathe vapors or mists. Use only with adequate ventilation. Wear respiratory protection if material is heated, sprayed, used in a confined space, or if the exposure limit is exceeded. Warning properties are not adequate to prevent overexposure from inhalation. Avoid contact with skin and eyes. Wear appropriate eye and skin protection. Wash thoroughly after handling. Do not breathe smoke and gases created by overheating or burning this material. Decomposition products can be highly toxic and irritating.

**Conditions for safe storage, including any incompatibilities:** Store in tightly closed containers to prevent moisture contamination. Do not reseal if contamination is suspected. Protect from physical damage. Store between 44.6-122°F (7-50°C)

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Exposure guidelines:**

Homopolymer of Hexamethylene Diisocyanate	None Established
Hydrophilic Aliphatic Polyisocyanate	None Established
Hexamethylene-1,6-Diisocyanate	0.005 ppm TWA ACGIH TLV 0.02 ppm Ceiling Manufacturer
N, N-Dimethylcyclohexylamine	None Established

**Appropriate engineering controls:** Use with adequate general or local exhaust ventilation to maintain exposures below the occupational exposure limits.

**Individual protection measures, such as personal protective equipment:**

**Respiratory protection:** If the exposure limits are exceeded or if exposure levels are unknown, a NIOSH approved positive pressure air supplied respirator with a full facepiece or air supplied hood should be used. In some situations where exposure levels are known to be below 10 times the exposure limit an air purifying respirator (organic vapor with particulate prefilter) can be used. A change schedule for cartridges is required. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 and good industrial hygiene practice.

**Skin protection:** Wear impervious gloves such as butyl rubber, nitrile or neoprene.

**Eye protection:** Chemical safety goggles recommended.

**Other:** Impervious clothing as needed to prevent contact. A safety shower and eye wash should be available in the immediate work area.

**Medical Surveillance:** A pre-placement physical should be given to all employees that will work with isocyanates. Employees with a prior isocyanate sensitization should be excluded from working with this product. A history of adult asthma, eczema and respiratory allergies are possible reasons for excluding or restricting the employee from working with this product. A comprehensive annual medical surveillance program should be instituted for all employees who work with isocyanates. Once a worker has been diagnosed as sensitized, no further exposure can be permitted.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance (physical state, color, etc.):** Clear, light yellow liquid

**Odor:** Slight

<b>Odor threshold:</b> 0.01 (HDI)	<b>pH:</b> Not applicable
<b>Melting Point/Freezing Point:</b> Not available	<b>Boiling Point:</b> Decomposes
<b>Flash point:</b> 365°F / 185°C	<b>Evaporation rate:</b> Not available
<b>Flammability (solid, gas):</b> Not applicable	
<b>Flammable limits: LEL:</b> Not applicable	<b>UEL:</b> Not applicable
<b>Vapor pressure:</b> <0.1 Hg @ 20°C	<b>Vapor density:</b> Not available
<b>Relative density:</b> 1.15	<b>Solubility(is):</b> Insoluble in Water
<b>Partition coefficient: n-Octanol/water:</b> Not available	<b>Auto-ignition temperature:</b> 833°F (445°C)
<b>Decomposition temperature:</b> 357.8°F (181°C)	<b>Viscosity:</b> Not available

## 10. STABILITY AND REACTIVITY

**Reactivity:** Contact with water or temperatures above 350°F (177°C) may cause polymerization.

**Chemical stability:** Stable. Heating above 194°F (90°C) can result in the release of slight amounts of monomeric hexamethylene diisocyanate.

**Possibility of hazardous reactions:** Contact moisture or other material that react with isocyanates and temperatures >350°F (177°C) may cause polymerization.

**Conditions to avoid:** Avoid contact with heat, sparks and flames. Protect from freezing.

**Incompatible materials:** Avoid contact with water, amines, strong bases, alcohol and copper alloys.

**Hazardous decomposition products:** Thermal decomposition may produce carbon and nitrogen oxides, hydrogen cyanide, isocyanates, and isocyanic acid.

## 11. TOXICOLOGICAL INFORMATION

**Inhalation:** Inhalation of vapors or mists may cause mucous membrane and respiratory irritation.

Homopolymer of hexamethylene diisocyanate has been shown to cause respiratory sensitization. Symptoms include dryness of the throat, tightness of chest and difficulty in breathing. Symptoms may be delayed for several hours after exposure. This product can produce asthmatic sensitization upon a single inhalation exposure to a relatively high concentration or upon repeated inhalation exposures to lower concentrations. Individuals with lung or breathing problems or prior allergic reactions to isocyanates must not be exposed to vapor or spray mist. The allergic respiratory reaction may be life threatening.

**Ingestion:** Swallowing may cause gastrointestinal irritation abdominal pain, nausea, vomiting and diarrhea.

**Skin contact:** Skin contact may cause irritation with redness, itching and swelling. May cause allergic skin reaction. Animal tests have indicated that respiratory sensitization can result from skin contact with isocyanates.

**Eye contact:** May cause mild irritation with redness, tearing, stinging and swelling.

**Chronic effects from short- and long-term exposure:** Prolonged exposure to diisocyanates or polyisocyanates may cause chronic irritation, decreased lung function and lung damage and conjunctivitis.

**Reproductive Toxicity:** This product is not expected to cause adverse reproductive or developmental effects.

**Sensitization:** Hexamethylene-1,6-diisocyanate and has been shown to cause sensitization in a guinea pig maximization test. Hydrophilic aliphatic polyisocyanate was positive in the mouse local lymph node assay.

**Mutagenicity:** Homopolymer of hexamethylene diisocyanate was negative the in the AMES test (with/without metabolic activation). Hydrophilic aliphatic polyisocyanate was negative in the AMES test.

**Carcinogenicity:** None of the other components are listed as a carcinogen by IARC, NTP, ACGIH or OSHA.

**Acute Toxicity Values:** Product acute toxicity estimate (ATE): Oral: 250,000 mg/kg, Dermal >5000 mg/kg, Inhalation 0.581 mg/L

Homopolymer of hexamethylene diisocyanate: Oral rat LD50 >5,000 mg/kg; Inhalation rat LC50 0.581 mg/L/4 hr; Dermal rabbit LD50 >5,000 mg/kg.

Hydrophilic Aliphatic Polyisocyanate: Oral rat LD50 >5000 mg/kg, Inhalatij rat LC50 0.158 mg/L/4 hr

Hexamethylene-1,6-Diisocyanate: Oral rat LD50 746 mg/kg, Inhalation rat LC50 0.124 mg/L/4 hr, Dermal rabbit LD50 >7000 mg/kg.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity:**

Homopolymer of hexamethylene diisocyanate: 96 hr LC0 Brachydanio rerio >100 mg/L; 48 hr EC0 daphnia magna >100 mg/L; 72 hr EC50 Scenedesmus subspicatus >1,000 mg/L  
Hydrophilic Aliphatic Polyisocyanate: 96 hr LC0 Danio rerio 35.2 mg/L, 48 hr EC50 daphnia magna >100 mg/L, 72 hr IC50 Desmodesmus subspicatus 72 mg/L  
Hexamethylene-1,6-Diisocyanate: 96 hr LC0 Danio rerio >82.8 mg/L, 48 hr EC0 daphnia magna >89.4 mg/L, 72 hr EC50 Desmodesmus subspicatus > 77.4 mg/L

**Persistence and degradability:** Homopolymer of hexamethylene diisocyanate, hydrophilic aliphatic polyisocyanate and hexamethylene-1,6-diisocyanate are not readily biodegradable.

**Bioaccumulative potential:** Not expected to bioaccumulate.

**Mobility in soil:** No data available.

**Other adverse effects:** No data available.

### 13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all local, state and federal regulations. Incineration is the preferred method.

### 14. TRANSPORT INFORMATION

	UN Number	Proper shipping name	Hazard Class	Packing Group	Environmental Hazard
<b>DOT</b>	None	Not Regulated	None	None	None
<b>TDG</b>	None	Not Regulated	None	None	None
<b>IMDG</b>	None	Not Regulated	None	None	None
<b>IATA</b>	None	Not Regulated	None	None	None

**Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):** Not applicable – product is transported only in packaged form.

**Special precautions:** None known.

### 15. REGULATORY INFORMATION

**CERCLA:** This product has a Reportable Quantity (RQ) of 10,000 lbs. (based on the RQ for Hexamethylene-1,6-Diisocyanate of 100 lbs). Releases above the RQ must be reported to the National Response Center. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

**SARA Hazard Category (311/312):** Acute Health

**SARA 313 Information: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372):**

Hexamethylene-1,6-Diisocyanate	822-06-0	<0.1-1%
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#### California Proposition 65

This product contains the following chemicals known to the State of California to cause cancer or reproductive toxicity (birth defects): None

**EPA TSCA Inventory:** All of the ingredients in this product are listed on the EPA TSCA Inventory.

**CANADA:**

**Canadian CEPA:** All of the ingredients in this product are listed on the Canadian DSL.

**Canadian WHMIS Classification:** Class D Subdivision 1 A (Very Toxic Material Causing Immediate and Serious Toxic Effects.), Class D Division 2 Subdivision A (Very Toxic Material Causing other Toxic Effects), Class D Division 2 Subdivision B (Toxic Material Causing other Toxic Effects)

This product has been classified under the CPR and this SDS discloses information elements required by the CPR.

**16. OTHER INFORMATION**

**NFPA Rating:** Health = 3      Flammability = 1      Instability = 1

**HMIS Rating:** Health = 3      Flammability = 1      Physical Hazard = 1

**SDS Revision History:** New SDS

**Date of preparation:** April 16, 2015

**Date of last revision:** New SDS

The above information is accurate to the best of our knowledge. However, since data, safety standards, and government regulations are subject to change and the conditions of handling and use, or misuse, are beyond our control, Dur-A-Flex, Inc. MAKES NO WARRANTY, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN AND USE.